NOTES 181

Seventh update of early emergences of moths at Selborne, Hampshire

These tables continue the comparisons (*Ent. Rec.* 113: 87-91) between my earliest observations of non-hibernatory species in 1992-94 and those in 1995-97. The m.v. light was run here on just over 320 nights during each year of the survey. Of these next 87 species, 48 arrived earlier in 1995-97 than in 1992-1994. Six species had the same earliest date in both periods. Fourteen species were seen in a month earlier than is usually expected.

These updates have so far related to the months January to July inclusive. They have covered 381 species, of which 246 (64.6%) arrived earlier in the second period, 1994-97. Twenty other species (5.2%) had the same earliest date in both periods, whilst 115 species (30.2%) arrived later in the second period.

Taking account of observations on both periods, 119 species (31.2%) were seen in a month earlier than is usually uexpected.

Species	1995-1997	1992-1994	MBGBI imago
1169 Gypsonoma dealbana (Frol)	1 Jul 95	20 Jul 94	Jul, Aug
1666 Geometra papilionaria (Linn.)	1 Jul 97	12 Jul 94	Jun-Aug
1732 Scotopteryx chenopodiata (Linn.)	1 Jul 95	26 Jul 93	Jul, Aug
2064 Phragmatobia fuliginosa fuliginosa (Linn.) – 2nd brood	1 Jul 97	12 Jul 94	Aug, Sep
2112 Diarsia brunnea (D.&S.)	1 Jul 97	1 Jul 94	Jun-Aug
1415 Orthopygia glaucinalis (Linn.)	2 Jul 95	7 Jul 92	Jul, Aug
1839 Eupithecia succenturiata (Linn.)	2 Jul 95	22 Jul 94	Jul, Aug
2044 Eilema griseola (Hb.)	2 Jul 97	9 Aug 94	Jul, Aug
2057 Arctia caja (Linn.)	2 Jul 95	2Jul 94	Jul, Aug
2225 Brachylomia viminalis (Fabr.)	2 Jul 97	30 Jun 93	Jul, Aug
2473 Laspeyria flexula (D.&S.)	2 Jul 95	3 Jul 92	Jun-Aug
1789 Rheumaptera undulata (Linn.)	3 Jul 97	29 Jun 92	Jun, Jul
1921 Crocallis elinguaria (Linn.)	3 Jul 97	11 Jul 94	Jul, Aug
1001 Lozotaeniodes formosanus (Geyer)	4 Jul 97	12 Jul 94	Jun-Aug
1094 Apotomis capreana (Hb.)	4 Jul 95	24 Jul 94	Jun-Aug
2047 Eilema complana (Linn.)	4 Jul 95	18 Jul 92	Jul, Aug
2130 Xestia baja (D.&S.)	4 Jul 97	24 Jul 93	Jul, Aug
2318 Cosmia trapezina (Linn.)	4 Jul 97	8 Jul 94	Jul-Sep

Species	1995-1997	1992-1994	MBGBI imago
161 Zeuzera pyrina (Linn.)	5 Jul 97	2 Jul 94	Jun-Aug
1504 Platyptilia pallidactyla (Haw.)	5 Jul 95	27 Jun 92	Jun-Aug
1767 Thera firmata (Hb.)	5 Jul 95	9 Jun 93	Jul-Nov
2437 Polychrisia moneta (Fabr.)	5 Jul 96	3 Jul 94	Jun-Aug
1037 Acleris holmiana (Linn.)	6 Jul 95,7	8 Jul 93	Jul, Aug
1170 Gypsonoma oppressana (Treit.)	6 Jul 95	12 Jul 94	Jun, Jul
1294 Crambus pascuella (Linn.)	6 Jul 97	22 Jul 94	Jun-Aug
1358 Evergestis pallidata (Hufn.)	6 Jul 95	17 Jul 94	Jun-Aug
1378 Phlyctaenia coronata (Hufn.)	6 Jul 97	18 Jul 94	Jun-Aug
1417 Pyralis farinalis (Linn.)	6 Jul 95	19 Jun 93	Jul-Sep
1640 Euthrix potatoria (Linn.)	6 Jul 95	12 Jul 94	Jul, Aug
2118 Lycophotia porphyrea (D.&S.)	6 Jul 97	8 Jul 94	Jun-Aug
1159 Rhopobota naevana (Hb.)	7 Jul 97	23 Jul 94	Jun-Sep
1305 Agriphila tristella (D.&S.)	7 Jul 97	7 Jul 92	Jul-Sep
1313 Catoptria pinella (Linn.)	7 Jul 97	21 Jul 93	Jul, Aug
1438 Trachycera suavella (Zinck.)	7 Jul 97	12 Jul 94	Jul, Aug
873 Blastobasis lignea (Wals.)	8 Jul 97	20 Jul 93	Aug
938 Agapeta zoegana (Linn.)	8 Jul 97	29 Jun 92	May-Aug
1108 Lobesia abscisana (Doubl.)	8 Jul 97	15 Jul 93	Jul, Aug
1200 Eucosma hohenwartiana (D.&S.)	8 Jul 96	9 Jun 93	Jun-Aug
1316 Catoptria falsella (D.&S.)	8 Jul 95, 7	4 Jul 93	Jul, Aug
1777 Hydriomena furcata (Thunb.)	8 Jul 95	25 Jun 93	Jul-Aug
2293 Cryphia domestica (Hufn.)	8 Jul 97	30 Jun 94	Jul, Aug
196 Morophaga choragella (D.&S.)	9 Jul 95	5 Jun 93	Jul, Aug
1183 Epiblema foenella (Linn.)	9 Jul 95	4 Jul 93	Jul, Aug
1426 Achroia grisella (Fabr.)	9 Jul 96	21 Jul 94	Jun-Oct
1454 Dioryctria abietella (D.&S.)	9 Jul 97	3 Jul 94	Jul, Aug
1655 Tethea or or (D.&S.)	9 Jul 96	24 May 93	May-Aug
2475 Parascotia fuliginaria (Linn.)	9 Jul 97	7 Jul 93	Jun-Aug

NOTES 183

Species	1995-1997	1992-1994	MBGBI imago
2196 Mythimna pudorina (D.&S.)	11 Jul 97	17 Jul 94	Jun, Jul
450 Scythropia crataegella (Linn.)	12 Jul 97	17 Jun 93	Jul
1436 Conobathra repandana (Fabr.)	12 Jul 95	25 Jul 94	Jul, Aug
2303 Thalpophila matura (Hufn.)	12 Jul 95	7 Aug 94	Jul, Aug
453 Ypsolopha dentella (Fabr.)	13 Jul 95	2 Jul 94	Jul-Sep
1792 Philereme transversata britannica (Lempke)	13 Jul 97	12 Jul 94	Jul
868 Helcystogramma rufescens (Haw.)	14 Jul 95	23 Jul 94	Jun-Aug
1038 Acleris laterana (Fabr.)	14 Jul 97	11 Aug 94	Aug-Oct
1634 Malacosoma neustria (Linn.)	14 Jul 96	7 Jul 93	Jul, Aug
2033 Lymantria monacha (Linn.)	14 Jul 95	15 Jul 93	Jul, Aug
2037 Miltochrista miniata (Forst.)	14 Jul 97	16 Jul 94	Jun-Aug
1233 Pammene aurita (Raz.)	15 Jul 97	27 Jul 94	Jul, Aug
1912 Ennomos quercinaria (Hufn.)	15 Jul 95	19 Jul 93	Aug, Sep
2341 Mesoligia furuncula (D.&S.)	15 Jul 97	15 Jul 93	Jul, Aug
1323 Pediasia contaminella (Hb.)	16 Jul 95	27 Jul 94	Jul, Aug
2335 Apamea scolopacina (Esp.)	16 Jul 97	16 Jul 93	Jun-Aug
1794 Euphyia unangulata (Haw.)	17 Jul 95	17 Jul 94	Jun-Aug
1421 Aglossa pinguinalis (Linn.)	18 Jul 95	1 Jul 94	Jun-Aug
2361 Hydraecia micacea (Esp.)	19 Jul 97	7 Aug 94	Aug-Oct
1439 Trachycera advenella (Zinck.)	20 Jul 95	14 Jul 93	Jul, Aug
2111 Noctua janthe (Borkh.)	20 Jul 97	19 Jul 93	Jul-Sep
969 Pandemis corylana (Fabr.)	22 Jul 96	15 Jul 93	Jul-Sep
1388 Udea lutealis (Hb.)	22 Jul 95	28 Jul 93	Jul-Sep
1126 Ancylis badiana (D.&S.)	23 Jul 97	27 Jul 93	May-Aug
1134 Epinotia ramella (Linn.)	23 Jul 97	22 Aug 93	Jul-Sep
1260 Cydia splendana (Hb.)	23 Jul 96	24 May 93	Jul-Sep
1884 Abraxas grossulariata (Linn.)	23 Jul 97	16 Jul 94	Jul, Aug
2112 Noctua interjecta caliginosa (Schaw.)	24 Jul 95, 7	26 Jul 94	Jul, Aug
430 Yponomeuta plumbella (D.&S.)	25 Jul 95	30 Jul 92	Jul, Aug

Species	1995-1997	1992-1994	MBGBI imago
1303 Agriphila selasella (Hb.)	25 Jul 95	8 Aug 94	Jul, Aug
455 Ypsolopha scabrella (Linn.)	26 Jul 95	10 Aug 94	Jul-Sep
1307 Agriphila latistria (Haw.)	27 Jul 95	12 Aug 94	Jul-Sep

- ALASDAIR ASTON, Wake's Cottage, Selborne, Hampshire GU34 3JH.

EDITORAL NOTE: Alasdair Aston's regular summaries of species emerging earlier than expected provide a valuable ongoing record. For the benefit of new subscribers, earlier summaries may be read in this journal at 106: 116; 107: 4; 107: 191; 110: 54; 110: 189; 111: 134; 111: 220; 111: 286; 112: 183-185, antea 29-30 and antea 87-91.

Not quite observations of snow fleas *Boreus hyemalis* (L.) (Mecoptera: Boreidae) feeding

Two male snow fleas *Boreus hyemalis* were found on the sunny afternoon of 20 January 2001 on a snow patch, about 8 metres x 30 metres, at 600 metres altitude on the south-facing slope of Bera Bach, Snowdonia (VC 49, grid reference SH 667674). Mindful of the lack of information on which moss species *Boreus* utilise (Plant, 1994. *Provisional atlas of the lacewings and allied insects (Neuroptera, Megaloptera, Raphidioptera and Mecoptera) of Britain and Ireland*. Biological Records Centre, Huntingdon), samples of mosses from the turf around the edge of the snow patch were collected, and kindly identified by Dr David Stevens of CCW as *Dicranum scoparium*, *Hylocomium splendens*, *Rhytidiadelphus squarrosus* and *Polytrichum alpinum* var. *alpinum*.

On the evening of the day of capture, both *Boreus* were placed in a Petri dish with all the moss samples. During two hours of observation there was no sign of feeding on moss. Since the related genus *Panorpa* feeds on insects, several springtails were also placed in the Petri dish as potential food. These were ignored by the *Boreus* even when the springtails were under their feet. I subsequently learned that Withycombe (1921. On the life-history of *Boreus hyemalis* L. *Trans. ent. Soc.Lond.*, 1921: 312-318) found *Boreus* would feed on the soft contents of crushed flies, but not on live or whole insects.

One *Boreus* was then starved for two days in a tube with damp tissue paper but no moss. When it and a piece of *Rhytidiadelphus* were then placed in a pot, the *Boreus* climbed on to the moss and poked its mouthparts into a whorl of leaves. The mandibles were not visible, but the base of the mouthparts was in motion for about 10 minutes, suggesting the mandibles were working. Afterwards the leaf was peeled back and examined but no feeding damage could be seen under a x40 microscope.

The other mosses were presented to the *Boreus* in turn for 10-15 minutes. *Dicranum* was "felt" with the tips of the palps, but no feeding was attempted. *Hylocomium* leaf bases were probed briefly several times but no sustained use of